AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for transmitting asynchronous transfer mode (ATM) adaptation layer-2 (AAL2) type ATM cells (AAL2 cells), comprising:

an AAL transmitter that generates one or more AAL cells by multiplexing N AAL packets, generated by adding an AAL packet header to an i^{th} data subset of an original user data set, the AAL transmitter residing in a channel card, the channel card further ~~comprising~~ including an AAL receiver and a CPU;

an AAL receiver that receives the one or more AAL cells generated by the AAL transmitter and that restores the original user data set by demultiplexing the N AAL packets included in the one or more AAL cells, the AAL receiver residing in an AAL2 processor; and

an AAL2 transmitter that receives the restored original user data set from the AAL receiver and that generates one or more of the AAL2 cells by multiplexing M common part sublayer (CPS) packets, generated by adding a CPS packet header to a j^{th} data subset of the restored original user data set, the AAL2 transmitter residing in the AAL2 processor,

wherein

i, j, N, and M are positive integers, $1 \leq i \leq N$, and $1 \leq j \leq M$.[[.]]

2. (Original) The apparatus of claim 1, wherein the AAL packet header includes a sequence number of the i^{th} data subset.

3. (Original) The apparatus of claim 2, wherein the AAL packet header further includes a routing tag field that identifies the original user data set and a length indicator field that indicates the length of the i^{th} data subset.

4. (Original) The apparatus of claim 3, wherein the AAL packet header further includes a C-FLAG field that indicates whether the i^{th} data subset represents the N^{th} data subset of the original user data set.

5. (Original) The apparatus of claim 1, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field, which indicates a starting location of an i^{th} AAL packet.

6. (Currently Amended) An apparatus for receiving asynchronous transfer mode (ATM) adaptation layer-2 (AAL2) type ATM cells (AAL2 cells), comprising:

an AAL2 receiver that receives one or more of the AAL2 cells, containing common part sublayer (CPS) packets corresponding to an original user data set, and restores the original user data set by demultiplexing the CPS packets, the AAL2 receiver residing in an AAL2 processor;

an AAL transmitter that receives the restored original user data set from the AAL2 receiver and that generates one or more AAL cells by multiplexing N AAL packets, generated by adding an AAL packet header to an i^{th} data subset of the restored original user data set, the AAL transmitter residing in the AAL2 processor; and

an AAL receiver that receives the one or more AAL cells from the AAL transmitter and that restores the original user data set by demultiplexing the N AAL packets, the AAL receiver residing in a selector, the selector further ~~comprising~~ including a second AAL transmitter and a CPU,

wherein

i and N are positive integers and $1 \leq i \leq N$.

7. (Canceled)

8. (Original) The apparatus of claim 6, wherein the AAL packet header includes a sequence number of the i^{th} data subset, a routing tag field identifying the original user data set, and a length indicator field indicating the length of the i^{th} data subset.

9. (Original) The apparatus of claim 8, wherein the AAL packet header further includes a C-FLAG field that indicates whether the i^{th} data subset represents the N^{th} data subset of the restored original user data set.

10. (Original) The apparatus of claim 6, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field, which indicates a starting location of an i^{th} AAL packet.

11. (Currently Amended) A method for transmitting asynchronous transfer mode (ATM) adaptation layer-2 (AAL2) type ATM cells (AAL2 cells), comprising:

generating N AAL packets by adding an AAL packet header to an i^{th} data subset of an original user data set, the generating being performed in an AAL transmitter residing in a channel card, the channel card further ~~comprising~~ including an AAL receiver and a CPU;

generating one or more AAL cells by multiplexing the generated N AAL packets in the AAL transmitter of the channel card;

receiving the original user data set at an AAL receiver;

restoring the received original user data set by demultiplexing the N AAL packets included in the AAL cells, the restoring being performed by ~~an~~ the AAL receiver residing in an AAL2 processor;

receiving the restored original user data set at an AAL2 transmitter;

generating M common part sublayer (CPS) packets by adding a CPS packet header to a j^{th} data subset of the restored original user data set by ~~an~~ the AAL2 transmitter residing in the AAL2 processor;

generating one or more of the AAL2 cells by multiplexing the M CPS packets by the AAL2 transmitter residing in the AAL2 processor; and

transmitting the AAL2 cells to a receiving system through a connection line, wherein

i, j, N, and M are positive integers, $1 \leq i \leq N$, and $1 \leq j \leq M$.

12. (Original) The method of claim 11, wherein the AAL packet header includes a sequence number of the i^{th} data subset.

13. (Original) The method of claim 12, wherein the AAL packet header further includes a routing tag field, identifying the original user data set, and a length indicator field, indicating the length of the i^{th} data subset.

14. (Original) The method of claim 13, wherein the AAL packet header further includes a C-FLAG field that indicates whether the i^{th} data subset represents the N^{th} data subset of the original user data set.

15. (Original) The method of claim 11, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field, which indicates a starting location of an i^{th} AAL packet.

16. (Currently Amended) A method of receiving asynchronous transfer mode (ATM) adaptation layer 2 (AAL2) type ATM cells (AAL2 cells), comprising:

receiving one or more AAL2 cells containing common part sublayer (CPS) packets corresponding to an original user data set , the receiving being performed in an AAL2 receiver residing in an AAL2 processor;

restoring the original user data set by demultiplexing the CPS packets by the receiver in the AAL2 processor;

receiving the restored original user data set at an AAL transmitter;

generating N AAL packets by adding an AAL packet header to an i^{th} data subset of the restored original user data set, the generating being performed by ~~an~~ the AAL transmitter residing in the AAL2 processor;

generating one or more AAL cells by multiplexing the N AAL packets by the AAL transmitter residing in the AAL2 processor; ~~and~~

receiving the one or more AAL cells at an AAL receiver; and

restoring the original user data set by demultiplexing the N AAL packets included in the one or more AAL cells, the restoring being performed by ~~an~~ the AAL receiver residing in a selector, the selector further ~~comprising~~ including a second AAL transmitter and a CPU,

wherein

i and N are positive integers and $1 \leq i \leq N$.

17. (Canceled)

18. (Original) The method of claim 16, wherein the AAL packet header includes a sequence number of the i^{th} data subset, a routing tag field identifying the original user data set, and a length indicator field indicating the length of the i^{th} data subset.

19. (Original) The method of claim 18, wherein the AAL packet header further includes a C-FLAG field that indicates whether the i^{th} data subset represents the N^{th} data subset of the restored original user data set.

20. (Original) The method of claim 16, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field, which indicates a starting location of an i^{th} AAL packet.

21. (Original) The apparatus of claim 1, wherein i, j, N, and M are positive integers, $1 \leq i \leq n$, and $1 \leq j \leq M$.